

REMARKS

Claim 14 has been cancelled without prejudice or disclaimer. Claim 22 has been amended to incorporate the subject matter of claim 23 and, to recite that the gold complex structure is a part of a side chain. Claim 14 has also amended to introduce "side chain" using the indefinite article "a." Claim 23 has been cancelled. No new matter has been added. Entry of the Amendment, which combines and cancels existing claims to place the application in condition for allowance, is respectfully requested.

Upon entry of the Amendment, claims 22, 24 and 25 will be pending.

Claim 22 was rejected under 35 U.S.C. § 102(b) as being anticipated by Irwin et al (Luminescent gold(I) acetylides: from model compounds to polymers, Organometallics, 1997, 16, 3541-3547).

Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Irwin et al in view of Ikehira et al (US 2002/0193532) and Senoo et al (US 2002/0045062).

Claims 24 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Irwin et al in view of Ikehira et al.

Claims 22, 24 and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikehira et al in view of Irwin et al.

Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ikehira et al in view of Irwin et al and Senoo et al.

The above five rejections should be withdrawn because Irwin et al, Ikehira et al and Senoo et al do not disclose or render obvious the present invention, either alone or in combination.

In the Amendment filed December 18, 2008, Applicants explained that the gold complex structure of Irwin et al is contained in a main chain of the compounds, not as a part of a “cross-linking group” or “a side chain” as required by the present claims.

In response, the Examiner stated, given that the crosslinking group is recited as being separate from the side chain (claims 14 and 22: “part of the side chain or crosslinking group”), the claimed crosslinking group could include those crosslinking groups which incorporate into the main chain. In this regard, the Examiner considered the gold complex of Irwin et al to “cross-link” the monomeric complexes forming the polymer, thereby meeting the present claims.

Although Applicants disagree, to expedite the prosecution of the present application, independent claim 22 has been amended to recite “a gold complex structure as a part of a side chain ~~or crosslinking group.~~”

In the Amendment filed December 18, 2008, Applicants further explained that Irwin et al’s polymers, having a rigid structure comprising conjugation and a gold atom, exhibit different properties from the claimed polymers having a gold complex in a side chain, and that Ikehira et al does not disclose specific examples of non-conjugated polymers.

In response, the Examiner noted that the features upon which Applicant relies (i.e., solubility, unchanged emission from the monomer, and non-conjugated polymers) are not recited in the rejected claims.

In view of the above, Applicants have amended the polymerizable functional group of claim 22 to an organic group having a carbon-carbon double bond (i.e., the recitation of claim 23).

The polymer of claim 22 as amended is a polymer obtained by polymerizing a gold complex, where the polymerizable functional group is an organic group having a carbon-carbon

double bond. The amendment further clarifies that the monomer units of the polymer are not conjugated to one other. Accordingly, emission from the polymer of amended claim 22 is unchanged from the emission from the monomer, and the main chain of the polymer does not have a conjugated structure.

Further, although Ikehira et al discloses a polymeric light-emitting substance having in the main chain or side chain a metal complex structure showing light emission in paragraph [0009], Ikehira et al does not teach the gold complex recited in the present claims. Since Irwin et al's gold complex is in the main chain, one skilled in the art would not have been motivated to modify Ikehira et al in view of the teaching of Irwin et al to arrive at the present invention, where the gold complex is in the side chain.

Previous claim 23 was rejected as being unpatentable over Ikehira et al in view of Irwin et al and Senoo et al, because Senoo et al is said to teach a vinyl polymer comprising an organic compound having an electron-transporting component in a side chain thereof.

However, Senoo et al relates to an invention of insolubilizing a compound having at least two polymerizable carbon-carbon double bonds by polymerizing after forming a film and by crosslinking ([0013]-[0016]). Although Senoo et al teaches an electron-transporting compound and a luminescent compound, these compounds only constitute a crosslinking group or a main chain. Furthermore, the polymer obtained by Senoo et al is insoluble in a solvent and therefore completely different from the polymer of the present invention which is easily soluble in a solvent, enabling forming a film easily by applying the polymer solution.

Accordingly, one skilled in the art could not have achieved the present invention from the teachings of Irwin et al and Ikehira et al, which suggest a polymer having a gold complex structure, in view of the teachings of Senoo et al.

In view of the above, reconsideration and withdrawal of all the §§102/103(a) rejections based on Irwin et al, Ikehira et al and Senoo et al are respectfully requested.

Claim 14 was rejected under 35 U.S.C. §. 103(a) as being unpatentable over Ikehira et al in view of Lu et al (The $^3(\pi\pi^*)$ emission of $\text{Cy}_3\text{PAu}(\text{C}\equiv\text{C})_n\text{AuPCy}_3$ ($n=3, 4$). Effect of chain length upon acetylenic $^3(\pi\pi^*)$ emission.).

As noted, claim 14 has been cancelled, rendering this rejection moot.

Allowance of claims 22, 24 and 25 is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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CUSTOMER NUMBER

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